

**ABSTRACT OF THE DISCLOSURE**

An optical fiber laser has an output that is stabilized to adapt to changes in laser operating temperature. At the output of the laser a plurality of wavelength-selective stabilizing reflectors is provided, each having a reflectivity profile with a different center wavelength. The reflectors, typically Bragg gratings, have a relative degree of reflectivity and relative wavelength separation that results in the output power of the laser being at one or more of the reflector center wavelengths throughout the temperature change. Thus, as a temperature shift causes the wavelength of the optical energy generated in the laser gain medium to change, the grating-stabilized output of the laser shifts between one locked wavelength and another. However, the output remains stable over the extended wavelength range provided by the multiple reflectors. Such a laser is particularly useful in an amplifier system in which the laser is used as an optical pump source.